

## **Jochen Felsenheimer, Philip Gisdakis and Michael Zaiser (eds) : Active Credit Portfolio Management**

**John Wiley & Sons, Chichester, 2006, 581 pages, approx. 110 Euro.**

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Active Credit Portfolio Management constitutes a modern approach of credit portfolio management using credit derivatives and taking technical market factors into account. The intention of the book is to combine a practical view on credit markets with a theoretical foundation of pricing credit-risky instruments in accordance with standard sources of financial mathematics. The focus is not on the management of loan portfolios, but on liquid bond portfolios. The target group of the authors are readers actively involved in portfolio management like asset managers for example of insurance companies or investment funds, also academics who want to get a more practical view of the topic.

The book is structured in three parts: “Markets”, “Models”, and “Management”. The first part is a comprehensive review of credit markets. It first glances at the market for euro-denominated bond issues and related credit derivatives in the first chapter, outlining historical market development and current status, major market participants and issuers, as well as their motives to operate in the market. Also, the variety of credit classes, which are high quality, high grade, high yield, and asset backed securities are characterized and an introduction is given to credit ratings and rating agencies. In particular, the question whether ratings are an efficient source for pricing credits is discussed. The second chapter introduces more sophisticated classes of credit-risk-instruments, starting from straight bonds and going on to bonds with embedded options to exotics like payment-in-kind notes and subordinated corporate bonds. Also, credit derivatives are introduced, from single-name contracts (such as credit default swaps or recovery default swaps) to portfolio credit derivatives like index swaps or default basket products, as well as spread options, and futures. As the product development in this area is far from being finalized, an outlook

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on possible future products concludes this chapter. The fundamental analysis of the credit risk sources is the topic of chapter 3, which deals with credit analysis for non-financial companies, first introducing the evaluation process for an issuer and closing with the evaluation of a specific debt instrument. The role of, for example, sovereign risk, the relationship of the corporate to its sovereign, as well business risk and financials risk is carefully analyzed. Rating agencies' methodologies are compared. The next chapter relates credit spreads to macro-economic factors, such as the stage of the business cycle, risk-free yields, or inflation figures. Additionally, other sources that can affect credit spreads, such as M&A and leveraged buyouts activity, default and recovery rates, as well as equity-debt linkage and new issuance activity are presented and analyzed.

The next part of the book, "Models", is devoted to more technical valuation topics and starts with an introduction to fixed income basics, which is extended to a sound review of the relevant financial mathematics. The following chapter introduces the most common concepts of how to measure credit spreads, the compensation for assuming credit risk, critically appreciating these measures in practice and showing their limitations. Different credit risk models are introduced in the following chapters starting from a single-step, two-stage model and this is subsequently extended, keeping related mathematics at an accessible level. Also, recovery treatment as a risk factor that is often ignored in the valuation process of credit-risky portfolios is broadly discussed at the end of Chapter 7. Reduced-form models, structural models, and rating-based transition matrix models for single names are carefully presented in the Chapter 8. This is extended to credit portfolio models in the next chapter. In Chapter 9 all the models presented earlier are applied to value credit-risky instrument, starting from plain-vanilla CDS to options, portfolio swaps, to default baskets and collateralized debt obligations. Also, the sensitivities of complex products are characterized and the pricing is given for exotic derivatives like equity default swaps or constant maturity structures. The "Models" part of the book closes with a review of portfolio risk measurement. Risk measures like VAR and the term conditional value at risk are discussed including the four major credit portfolio models (CreditMetrics, KMV, CreditRisk+, and CreditPortfolioView).

Finally, the "Management" part constitutes the core of the book. Chapter 12 provides the qualitative framework of the part and states the "Principles of Credit Portfolio Management" and demonstrates which basic issues have to be considered when setting up a management process. First, the role of active credit portfolio management in the asset allocation process is characterized, then the passive and active management styles are discussed. Also the quantitative versus fundamental credit research and the issue of diversification. The chapter concludes with a description of the main building blocks of credit portfolio management, starting with the specification of investment targets and ending with the performance analysis. Credit indices for euro-denominated cash bonds as investment opportunities and the needed quantitative tools that support the portfolio allocation to industries or quality class are introduced in the next chapter. Chapter 14 introduces the most common performance measures in portfolio management that can also be applied in a credit context. Finally, Chapter 15

demonstrates how the performance analysis for a credit portfolio should be implemented in practice with a special focus on the return attribution analysis. Chapters 16 and 17 address the issues of hedging and trading strategies that may arise in the context of credit portfolio management. The former starts with hedging procedures on a single-name level and demonstrates the calculation of hedge ratios in order to immunize against default or spread risk. Hedging at a portfolio level is then discussed, the required quantitative approaches are introduced. Chapter 16 then closes with a discussion about finding appropriate hedging instruments. A wide variety of trading strategies involving credit-risky instruments, such as basis trades, curve trades, skew trades, correlation trading, and capital structure arbitrage are then presented and discussed.

Since operational issues like accounting standards and Basel II play an important role when implementing an efficient credit portfolio management strategy, Chapters 18 and 19 address these two issues by giving a short but concise introduction to the respective topics. Then the treatment of credit-risky instruments is examined from a practical perspective.

I would recommend this book to practitioners working in the field who want to have stand-alone book that gives a review of the current state of credit portfolio management. It nicely combines the practical aspects with the relevant theoretical framework, without getting lost in mathematical models, making it also appealing to academics in finance.

### Comments

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